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ABSTRACT

Microteaching was developed in 1963 at Stanford University and was used initially for the training of secondary school teachers. It is controlled practice of specific teaching behavior; therefore, the role of the supervisor is important. Microteaching has the following advantages: faculty have to get together to agree on common purposes in its use; it becomes feasible to follow trainee performance closely; the program is individualized and not bound by any particular course structure; evidence of suitability for teaching is obtained; it is a useful resource tool; it simplifies the complex teaching process in the trainees' first contact with the tasks involved; it is efficient in terms of staff time, use of real pupils, their classrooms, and training facilities. "Minicourse," an adaptation of microteaching, differs from it in four ways: it is primarily an in-service, not a pre-service, model; it is a self-contained package that can be used wherever videotaping is available; trainees are self-evaluated by a structured critique, not a supervisor; films and tapes of model lessons serve as the basis for evaluation. An extensive bibliography is appended which includes applications of microteaching to subject matter and skills involved. (JK)

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MICROTEACHING : A BRIEF REVIEW

BY

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Description of Microteaching

Microteaching is real teaching reduced in time, number of students, and range of activities.

It was developed in 1963 at Stanford University, and was used initially for the training of secondary school teachers. Five aims guided the plans for the training of teaching skills:

(1) a realistic situation

(2) minimum risks for both teachers and students

(3) theoretical soundness, for example, numerous and distributed practice sessions, prompt feedback of results, immediate opportunity to make corrections.

(4) provision of a wide range of experiences, and

(5) economy in time and resources (Allen & Clark, 1967).

Applicable teaching skills included finishing lessons, responding to silence and non-verbal cues, maintaining participation, asking different kinds of questions, using good examples, and using visual aids (Allen & Ryan, 1969). It has also been applied to in-service training, counselling skills, and research in education.

A typical microteaching sequence might be as follows.

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A specific teaching skill such as asking questions that go beyond facts and stated content is identified. The teacher creates a short lesson of about five to twenty minutes in his area of specialization, with a very specific purpose, and teaches it to about five pupils, either real students or his fellow trainees. For example, if he is a history teacher, his microlesson might be about alternative causes of certain events. He could ask questions about hypothetical implications of each.

His lesson would be observed by the instructor, who might also make a videotape recording, keeping a careful note of his use of higher-order questioning. The trainee and instructor immediately get together and review the lesson, viewing the videotape, if one was made. A chance to reteach the lesson, followed by another meeting, is usually suggested, and, with the student's very first microlesson, the feedback should focus on his strong points.

Questions and Decisions in Using Micorteaching

There is considerable freedom in how the microteaching format can be adapted to individual circumstances, and it is not expected that all teaching procedures can be taught this way.

The first question is, which skill should be emphasized? If the trainee is a new teacher who has never taught, any of the basic skills, such as eliciting the participation

of pupils, could be stressed. With experienced teachers the skills are more likely to have been chosen by the participants in some way, and to have a "refresher course" image or be directed to very specific skills, such as interpreting nonverbal pupil behavior. This is quite difficult for someone who has no teaching experience.

How long should the microlesson be? Allen and Ryan (1969) found no differences between four- and seven-minute lessons. They suggest resisting the desire for longer lessons. This is a "teacher-centred," not a "pupil-centred," technique: the teacher's behavior is of interest. Four minutes are enough for the instructor and the trainee to achieve their goals. Of course whether the students learned what they were supposed to is a crucial test of the effectiveness of the teaching. Microteaching is a way to train specific teaching skills; there is always more to good teaching than these skills themselves, but the microlesson is not enough of a complete lesson to make such broad judgments. This has to wait until the trainee has a real class to teach. The aim is to teach the trainee skills which will transfer to real situations when he meets them.

An ethical problem is introduced in getting pupils to "practice on," since their learning is not the foremost purpose during the actual microlesson. There are answers to this challenge. First, the larger goal of microteaching is to better train teachers, with lasting effects in real

teaching. Second, pupils used are often paid volunteers, quite different from the captive audiences presented to the neophyte trainee during a more usual first teaching internship. Microteaching was intended to precede and supplement such internships, not to replace them. All persons serving as students, real pupils, paid volunteers, psychology students or fellow trainees, are informed of their training role. Third, microteaching is done in the presence of a supervisor, with the exception of trainees working only with each other.

Do the effects of microteaching carry through to the classroom? Apparently so, if the pupils with whom the microteaching is done are similar to those with whom the trainee will actually work (Johnson, 1971). Different pupils or the trainees' colleagues would be second choices when there are shortages of either time, money, or representative students. Recent work has also shown no differences between microteaching and two other training frameworks, a programmed videotape and lecture-discussion using still pictures from the videotape, in nonverbal teacher skills designed to encourage classroom interaction (e.g., eye contacts, nodding, moving toward pupils) (Pancrazio & Johnson, 1971). These techniques did share the important feature of very limited purposes, very clearly defined. The proponents of microteaching would be quite satisfied with these results, as micrcteaching has added to the repertoire of procedures for training. The importance

of the supervision cannot be overstressed. Microteaching is controlled practice of very specific teaching behavior. The choice of material and method would not be without reference to the supervisor or instructor.

All the reports of the use of microteaching stress the first feedback and discussion following the microlesson. The second microlesson might not always be necessary, and the videotaping is not a crucial part of the process. Videotape does provide an explicit record of a lesson, allows the collection of examples (with permission of the people filmed), and is particularly useful if students work on their own and the instructor views the videotapes at a more convenient time.

Advantages of Microteaching

Allen and Ryan (1969) saw five main advantages, especially if microteaching is a routine part of the training of teachers. First, faculty have to get together to agree on common purposes in its use. Second, it becomes feasible to closely follow trainee performance. Third, the program is individualized and not bound by any particular "course" structure. Fourth, evidence of suitability for teaching is obtained. Fifth, it is a useful research tool.

Craig (1969) added two others. First, it simplifies the complex teaching process in the trainees' first contact with the tasks involved. Teaching is viewed as including

specific skills which can be learned individually, rather than relying on a less useful global point of view (Gage, 1968). This does not imply that complete fragmentation is possible, merely that some is desirable. One result is that with microteaching students are able to actually study teaching in simplified situations. It is an opportunity to learn to teach and also to learn about teaching (Johnson, 1967).

Craig's second point is that microteaching is very efficient in terms of staff time, use of real pupils, their classrooms, and training facilities. Kallenbach and Gall (1969) have reported that microteaching can achieve results comparable to those attained by conventional methods in as little as one-fifth the time and with fewer administrative problems. Finally, most reports mention that trainees' apprehension concerning their first classroom experience is greatly lessened.

Microteaching also has other applications in higher education. Some of these are summarized by Shore (1972).

Criticisms of Microteaching

W.R. Borg (Far West Laboratory for Educational Research and Development, Berkeley) and his associates (1968, 1969, 1970) have produced an alternative, really an adaptation called Minicourse. As it has developed, the Minicourse differs from microteaching in four principal ways: (1) it is primarily an in-service, not pre-service, model;

(2) it is a self-contained package that can be used wherever videotaping is available; (3) trainees are self-evaluated by a structured critique, not by a supervisor, and (4) films or tapes of model lessons serve as the basis for evaluation, avoiding possible negative influences of supervisors.

There is some doubt about the seriousness of the criticisms implied in their changes. Some of their experimental results were that adding microteaching to minicourses and videotaping did not lead to better performance on specified behaviors, that the addition of the minicourse itself did improve performance, and that minicourse effects were more pronounced with practising teachers. There is apparently no basis in their studies for direct comparisons.

Comparisons should be based on convenience of use and availability of supervisory resources. There is much in common in the definition of specific components of teacher performance and teaching toward these goals. Borg is correct that microteaching is not self-contained and that it relies heavily on supervisory feedback. There are surely times when these are not disadvantages, for example, in some voluntary in-service training, and undisputedly, in pre-service training.

Gilliom (1969) cautioned that users of microteaching might get the impression that the micro situation is the same as the real classroom. However realistic, it is not the

same. Emphasis has to be explicitly on the teaching skills acquired, not on the conditions under which they were learned. Student teaching itself is the introduction to the real classroom.

It is also possible to criticize that skills might be taught which perpetuate obsolete practices of instruction and classroom organization. Like any versatile technique, microteaching can be used to achieve undesirable goals. The individuals involved continue to have the responsibility for concentrating on relevant teacher behavior.

In a similar vein, it is important to avoid concentrating too much on skills whose contribution to student learning is not wide, such as lecturing.

References

Allen, D.W., & Clark, R.J., Jr. Microteaching: Its rationale. The High School Journal, 1967, 51, 75-79.

Allen, D.W., & Ryan, D. Microteaching. Don Mills: Addison-Wesley, 1969.

Borg, W.R., Kallenbach, W.W., Kelly, M.L., & Langer, P. The Minicourse: Rationale and uses in the preservice education of teachers. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, February, 1968.

Borg, W.R., Langer, P., & Kelly, M.L. The Minicourse: A new tool for the education of teachers. Education, 1970, 90, 232-238.

Craig, D.G. Microteaching - To improve teacher education. The Agricultural Education Magazine, 1969, 41, 170 & 173.

Gage, N.L. Analytical approach to research on instructional methods. Journal of Experimental Education, 1968, 37, 119-125. Also in Phi Delta Kappan, 1968, 49, 601-606.

Gilliom, M.E. Microteaching in the methods course: Bridging the confrontation gap. Social Education, 1969, 33, 165-167 and 183.

Johnson, W.D. Microteaching: A medium in which to study teaching. The High School Journal, 1967, 51, 86-92.

Johnson, W.D. The effectiveness of three microteaching environments in preparing undergraduates for student teaching. Paper presented at the Annual Meeting of the American Educational Research Association, New York, February, 1971.

Kallenbach, W.W., & Gall, M.D. Microteaching versus conventional methods in training elementary intern teachers. The Journal of Educational Research, 1969, 63, 136-141.

Pancrazio, S.B., & Johnson, W.D. Comparisons of three teacher training approaches in non-verbal behaviors which encourage classroom interaction. Paper presented at the Annual Meeting of the American Educational Research Association, New York, February, 1971.

Shore, B.M. Some applications of microteaching in higher education. Learning and Development, 1972, 3 (6), 1-2.

Note: An annotated bibliography on microteaching is available. The Centre for Learning and Development also has reprints of many of the pertinent readings in its library, as well as copies of other bibliographies on microteaching. Enquiries are welcome.

ANNOTATED BIBLIOGRAPHY ON MICROTEACHING

Centre for Learning and Development
McGill University

Microteaching was developed in 1963 and first appeared in Education Index as a separate topic in the 1967-1968 edition. It has led to the development of other techniques, such as Minicourse and microcounselling. These derivatives are not given extensive coverage in this biliography. Special attention is paid to references not included in Allen and Ryan's (1969) text. The primary aims in the organization of this biliography were to focus on validation research on microteaching and to survey a wide variety of applications and reviews. It is hoped that this will allow for a more useful document, one that can particularly serve as a beginning point for working with microteaching.

The Centre for Learning and Development library contains a reprint or copy of many of the items in this bibliography especially papers presented at conferences, items from journals not received by other McGill libraries (particularly Education, McLennan, and Macdonald College), and items regarded as particularly important. Items in the CLD library are so marked.

This bibliography is divided into the following sections:

A- Basic Reading on Microteaching
B- Reports of Research and Rationale
C- General Reviews and Descriptions
D- Reports of Applications

  1- According to Subject Matter
  2- According to Skills Involved
  3- According to Institution

E- Other Items with Reference to Microteaching
F- Films, Other Bibliographies.

Compiled by Bruce M. Shore

January, 1972.

A: BASIC READING ON MICROTEACHING

These four articles and one book are judged to provide a good basic knowledge of microteaching. The list has been kept intentionally short, resulting in several other good items appearing only in other parts of this bibliography. These other items are appropriately annotated.

Allen, Dwight W. (U. Mass., Boston) & Ryan, Kevin (U. Chicago). Microteaching. Don Mills, Ontario/Reading, Mass.: Addison-Wesley, 1969.

This is the most important reference on microteaching. It reports the background of the microteaching project, details of its implementation, research, and applications. Included is a good bibliography of 38 previous references. (In CLD library).

Borg, W.R. (Far West Lab. for Educational R. and D., Berkeley), Kallenbach, W., Morris, M., & Friebel, Allen. Videotape feedback and microteaching in a teacher training model. The Journal of Experimental Education, 1969, 37, 9-16.

Important criticism of microteaching. First report on alternative Minicourse (now commercially available from MacMillan Educational Services). Concentrates on pre-service versus in-service, self-containment, self-evaluation versus supervisory feedback, and standardized filmed models of good performance. Shares stating of limited objectives for teacher performance and evaluation with microteaching. (In CLD library).

Cooper, J.M. (Stanford U., Palo Alto). Developing specific teaching skills through microteaching. The High School Journal, 1967, 51, 80-85.

States main considerations: (1) developing specific teaching skills (reinforcement techniques, change of pace, 3 presentation skills, examples, eliciting student questions), (2) training paradigms, (3) teach-reteach concept, (4) videotape, and (5) evaluative instruments. Stresses interrelations of these stages in skill development. Good, relevant article. (In CLD library).

Gage, N.L. (Stanford). Analytical Approach to research on instructional methods. The Journal of Experimental Education, 1969, 37, 119-125. Also in Phi Delta Kappan, 1968, 49, 601-6.

Proposes that microteaching is superior to a global approach to research in teaching methods in producing reliable and useful results. "Required reading" is a good way to describe this article. (In CLD library).

Johnson, W.D. (U. of Illinois, Urbana-Champaign). Microteaching: A medium in which to study teaching. The High School Journal, 1967, 51, 86-92.

Emphasizes pupil-learning for evaluation purposes. While not a research paper, this is very much about research concerning teaching and learning, rather than teacher preparation itself. (In CLD library).

B: REPORTS OF RESEARCH AND RATIONALE

Allen and Ryan (1969). See Part A of this biliography.

Allen, Dwight W. (U. Mass., Boston), & Clark, R.J., Jr. (Stanford, Palo Alto). Microteaching: Its rationale. The High School Journal, 1967, 51, 75-79.

An important article stressing the criteria sought in designing the microteaching model (realism, low risk, theoretical soundness, wide applicability, economy), possible applications, the importance of videotape recording, and its place in teacher education.

Allen, Dwight W. (U. Mass., Boston) & Gross, R.E. (Stanford U., Palo Alto). Microteaching. NEA Journal, 1965, 54 (9), 25-26.

A good general summary. Data presented supporting claim that teacher trainees highly regard the microteaching in their preservice education.

Austad, Charles A., & Emmer, Edmund T. Personality correlates of teacher performance in a micro-teaching laboratory. Austin: U. of Texas, Research and Development Centre for Teacher Education, 1970. (reported in ERIC News Plus+, 1971, 7 (3), 1).

Apparently found no relationships. Suggests other predictors of teacher performance should be sought.

Bell, C.G. (Texas Tech. Univ.) Can the art of teaching be structured? Journal of Home Economics, 1970, 62, 34-39.

Includes good examples of the parts of a microlesson, especially "framing a reference." Found possible differences between microteaching and control groups to be overshadowed by motivation to participate in the experiment.

Blankenburg, R.M., & Thompson, A.G. (Marquette U. Milwaukee). Microteaching. Momentum, 1971, 2, 34-37

Includes a study in which microteaching was used to give teacher trainees more confidence in their ability to teach and some indication of the importance of this part of their training. Interesting summary of possible research directions with microteaching. (In CLD library).

Borg et al. (1969). See Part A of this bibliography.

Cooper (1967). See Part A of this bibliography.

Davis, A.R. (U. Tennessee, Knoxville). Microteaching in a small liberal arts college. Audiovisual Instruction, 1971, 16 (3), 80-82.

Focuses on costs and means of implementation. Some skepticism can be expressed about the conclusion that microteaching was effective as employed; a 0.10 significance level was used with a sample size of 36. The general description is useful, reasonably detailed, and concise. Emphasis is placed on the inclusion of videotape recording. (In CLD library).

Davis, O.L., Jr., & Smoot, B.R. Effects on the verbal teaching behaviors of beginning secondary teacher candidates' participation in a program of laboratory teaching; Laboratory observation schedule and record. Educational Leadership, 1970, 28, 165-169.

Critiques by observers and audio recordings were used to collect data. Trainees' peers were asked to be themselves, not to role-play pupils. 85 trainees used microteaching, 55 did not. The microteaching group was superior on the ratio of teacher talk to total utterances, on informing. - i.e., did less of both, and on 15 other measures of verbal teaching behavior. An interesting validation experiment.

Douglas, J.E. (Kent State U., Ohio), & Pfeiffer, I.L. (Akron U., Ohio). Microteaching as a practicum for supervisor education: The effect on supervisor conference behavior and skills. Paper presented at American Educational Research Association Annual Meeting, New York, New York, February 1971.

A good illustration of the training of supervisory skills, not likely restricted to applications in education. Includes a welcome explicit statement of the limitations of the study. (In CLD library).

Fortune, J.C. (Memphis State U.). Toward a research strategy to investigate attributes of teacher behaviors. The High School Journal, 1967, 51, 93-98.

"This strategy involves focusing upon a specific teacher behavior while it was directed toward the accomplishment of a specific classroom goal,..., then isolating instances of the behaviors that result in minimal and maximal goal

attainment" (p. 94). Used repeated videotaping of micro-teaching situations. Judged microteaching as intermediate between laboratory and field experiences.

Fortune, J.C. (Memphis State U.), Cooper, J.M. (Stanford), & Allen, D.W. (Massachussetts). Stanford summer micro-teaching clinic, 1965. The Journal of Teacher Education, 1967, 18, 389-393.

Outline of the 7 week program. Reference to "Stanford Teacher Competence Appraisal Guide" as criterion instrument.

Gage (1968). See Part A of this bibliography.

Harris, W.N. (Bowling Green U., Ohio), Lee, V.M., Pigge, F.L. Effectiveness of micro-teaching experiences in elementary science methods classes. Journal of Research in Science Teaching, 1970, 7 (1), 31-33.

Personal variables (personality, general approach to teaching procedures, voice, grammar) showed no difference in initial level and no improvement for two groups of student-teachers of elementary science, one which received training by conventional methods and the other with microteaching. The 2 groups were initially equal on ratings of classroom techniques (use of background examples, providing concrete materials, etc.) and both gained significantly, but the final ratings of the microteaching group were significantly higher, and benefits are therefore seen for microteaching with regard to these skills. The report is not completely clear about how ignorant the 2 raters were of the aims of the study and the groupings of students. Ratings were averaged, and hypotheses were camouflaged as null hypotheses.

Ivey, A.E. (U. of Mass., Boston), Normington, C.J., Miller, C.D., Morrill, W.H. (all 3 at Colorado State U.), & Haase, R.F. (U. Mass.). Microteaching and attending behavior: An approach to prepracticum counselor training. Journal of Counseling Psychology Monograph Supplement, 1968, 15 (5, Pt. 2), 1-12.

Studied attending behavior, reflection of feeling and summarization of feeling, in a counsellor's interviewing behavior. Reports these skills can be successfully taught with a microteaching format. A useful summary for applications to counselling and related activities.

Johnson (1967) See Part A of this bibliography.

Johnson, W.D. (U. of Illinois, Urbana-Champaign), & Knaupp, J.E. Trainee role expectations of the microteaching supervisor. Journal of Teacher Education, 1970, 21, 396-401.

Factor analysis of replies to 37 Likert-type statements gave 4 factors, with the first two being especially strong. They were labelled A - tell me what to do, B - let me try, C - how are you doing?, and D - don't bother me with the details. The results appear similar to expectations outside microteaching contexts.

Johnson, W.D., & Pancrazio, S.B. (U. of Illinois). The effectiveness of three microteaching environments in preparing undergraduates for student teaching. Paper presented at American Educational Research Association Annual Meeting New York, New York, February 1971.

Compared the use of peers, real pupils, and freshman. Microteaching seems to work best itself with peers, but best transfer is with real pupils. (In CLD library).

Kallenbach, W.W. (Far West Lab. for Educational Research and Development, Berkeley), & Gall, M.D. Microteaching versus conventional methods in training elementary intern teachers. The Journal of Educational Research, 1969, 63, 136-141.

Microteaching did not achive better results than conventional training, but it achieved similar results in one fifth the time with fewer administrative problems. A simple and effective study.

Langer, P. (Far West Lab. for Educational Research and Development, Berkeley). Minicourse: Theory and Strategy. Educational Technology, 1969, 9 (9), 54-59.

"Minicourse is a product built around microteaching activities". God description of the development of the Minicourse, which is now commercially available from MacMillan Education.

Limbacher, P.c. (Texas A&MU., College Station). A study of the effects of microteaching experiences upon the classroom behavior of social studies student teachers. Paper presented at American Educational Research Association Annual Meeting, New York, New York, February 1971.

Includes an application of Flanders' interaction analysis in the assessment of classroom behavior. Exerpts of instruments appended. (In CLD library).

McKitrick, M.O. (Western Michigan U., Kalamazoo). Videotaped micro-teaching for preparing shorthand teachers. The Journal of Business Education, 1968, 43, 285-286.

Study comparing VTR microteaching group to observation group. Based conclusion (VTR useful) on student ratings. The measurement procedure is perhaps subject to questioning. (In CLD library).

Meier, J.H. (Rocky Mountain Educational Lab., Greeley, Colorado). Rationale for and application of microtraining to improve teaching. The Journal of Teacher Education, 1968, 19, 145-157.

Relates microteaching features to learning theory.

Pancrazio, S.B., & Johnson, W.D. (U. of Illinois). Comparison of three teacher training approaches in nonverbal behaviors which encourage classroom interaction. Paper presented at American Educational Research Association Annual Meeting. New York, New York, February 1971.

No differences were noted between microteaching and two other techniques, all of which resulted in learning. Interesting discussion near the end of selective uses of microteaching. (In CLD library).

Perlberg, A. (Technion-Israel Institute of Technology, Haifa), Peri, J.N., Weinreb, M., Nitzan, E., Shimron, J., (all four at Tel-Aviv U., Israel), & O'Bryant, D. (U. of Illinois). Studies on the use of video-tape recordings and microteaching techniques to improve university teaching. Paper presented at American Educational Research Association Annual Meeting, New York, New York, February 1971.

Validation studies on microteaching. Attention to nature of feedback worthy of particular note. (In CLD library).

Perlberg, A. (Technion-Israel Institute of Technology, Haifa). The use of portable video recorders and microteaching in supervision of vocational technical student teachers. Journal of Industrial Teacher Education, 1969, 7 (1), 38-45.

Begins with good general discussion of the importance of feedback mechanisms in student teacher supervision. Supervision in the study reported was remote: students mailed in their videotapes and received prompt feedback by telephone. An excellent illustration of the flexibility possible in using microteaching.

Perlberg, A. (Technion-Israel Institute of Technology, Haifa), & O'Bryant, D.C. (U. of Illinois). Videotaping and microteaching techniques to improve engineering instruction. Engineering Education, 1970, 60, 741-744.

Focuses on organizing efforts to improve instruction at universities, including appropriate rewards for professors who devote their energies to the pedagogy of their disciplines. (In CLD library).

Waimon, M.D. (Illinois State U., Norman), & Ramseyer, G.C. The effects of feedback on the ability to evaluate teaching. The Journal of Teacher Education, 1970, 21, 92-95.

Regards microteaching in behavior modification context, and sought to determine the best form of feedback from among four groups: one with no VTR, and 3 with VTR, one focused on the children, one on the teacher, and a side view of both. Found no differences based on ratings. A control that would have been more useful than no VTR would have been no feedback at all, and providing random reinforcement to the trainee; this would help judge if feedback at all is useful, regardless of the type.

Young, D.B. (U. of Maryland) Modification of teacher behavior using audio video-taped models in a micro-teaching sequence. Educational Leadership, 1969, 26, 394-403.

Mainly a review of very interesting theory and research on learning by imitation. Conclusions provide some validation of the Minicourse (see Borg et al., 1969, and Borg, 1970). A very useful summary.

C: GENERAL REVIEWS AND DISCUSSIONS

Allen, Dwight W. (U. Mass., Boston) A new design for teacher education: The teacher intern program at Stanford University. The Journal of Teacher Education, 1966, 17, 296-300.

A summary of the main points of the microteaching program. This article is superceded by the 1969 book by Allen and Ryan.

Allen, Dwight W., & Eve, A.W. (both U. Mass., Boston). Microteaching. Theory into Practice, 1969, 7, 181-185.

A good description including a concise definition (p.181): "... system of controlled practice that makes it possible to focus on specific teaching behaviors..."

Borg, W.R. (Far West Lab. for Educational R. and D., Berkeley). The minicourse - a milestone in the road to better teaching. British Journal of Educational Technology, 1971, 2 (1), 14-23.

Good outline of the series of Minicourse and their relation to microteaching.

Craig, D.G. (U. of Tennessee). Microteaching - to improve teacher education. The Agricultural Education Magazine, 1969, 41, 170 and 173.

A good short summary. Includes time study of microteaching activities, and raises the question of transfer of training to real teaching. (In CLD library).

Foster, F.G. (Northern Arizona U.). Micro-teaching. Arizona Teacher, 1967, 55 (4), 12-13.

A short summary which could have more explicitly stated that videotaping is not an integral part of microteaching, however useful. (In CLD library).

Gibson, J.W. Using videotape in the training of teachers. The Speech Teacher, 1968, 17, 107-109.

Remarks that videotape replay of microteaching seems to be best when supervision concentrates on one or two specific behaviors.

Gilliom, M.E. (Ohio State U.) Microteaching in the methods course: bridging the confrontation gap. Social Education, 1969, 33, 165-167 and 183.

Used as a last step before student teaching. Reports some interesting anecdotal feedback from teachers and pupils in microlessons, including some favorable and unfavorable criticisms of the technique. (In CLD library).

Huber, J. (U. of South Dakota), & Ward, B.E. (U. of Nebraska). Pre-service confidence through microteaching. Education, 1969, 90 (3), 65-68.

By 1969, microteaching was being used in 192 teacher training institutions in the U.S.A. Seems to help reduce fears related to first encounter with real class.

Leonard, .WP. (Temple U., Philadephia). Objective performance in microteaching activities. Audiovisual Instruction, 1971, 16 (3), 66-67.

Suggests audio recording is sufficient and advantageous, not only financially. Students are less distracted by how they look, and other things. An interesting critique. A more balanced view might suggest investigating where and when the audio alone, video alone, or both together are most effective.

Lowry, W.C. (U. of Virginia, Charlottesville). Some innovations in the professional preparation of teachers. The Arithmetic Teacher, 1968, 15, 727-734. (Also condensed in The Educational Digest, 1969, 34, 28-31.)

Short summary of microteaching together with simulation and interaction analysis.

Mayhugh, S.L. (Indiana State U.) Micro teaching: A mojor component of the pre-service program. Contemporary Education, 1969, 39, 206-209.

Compares microteaching to two other teaching skill inventories developed at Indiana State University. Includes a good short description of microteaching.

McAleese, W.R., & Unwin, D. A selective survey of microteaching. Programmed Learning and Educational Technology (Britain) 1971, 8 (1), 10-21.

Reasonably thorough survey, directed at a largely British audience.

Perlberg, A. (Technion-Israel Institute of Education). Microteaching: A new procedure to improve teaching and training. Journal of Educational Technology, 1970, 1, 35-43.

A very good general review, concluding with sections on uses outside teacher preparation. (In CLD library).

Shore, B. M. (McGill U., Montreal) Microteaching: A brief review. Centre for Learning and Development Monograph, 1972, available for the Centre for Learning and Development, McGill University.

Adds to other reviews with discussion of the ethics of using children in micro situations when their learning is really secondary to the trainee's. Summarizes validation studies of microteaching. (In CLD library).

Shore, B. M. (McGill U., Montreal) Some applications of microteaching in higher education. Learning and Development, 1972, 3 (6), 1-2. (Available from the Centre for Learning and Development, McGill University, Montreal).

Emphasizes applications outside teacher education for public schools. Includes description of a microteaching application at McGill. (In CLD library).

Shore, B. M. (McGill U., Montreal) Studying Teaching with Microteaching. Education Canada, 1972, in press.

Discussion of how microteaching allows trainees to study teaching as a process and discipline, as well as helping them to learn specific skills. Includes description of microteaching and summary of major issues and variations, including validation studies. (In CLD library).

Smith and Woolschlager (1969). See Part D1 of this bibliography.

Woolschlager (1970). See Part D1 of this biliography.

... Microteaching in student teacher laboratory. School and Society, 1968, 96, 128-130.

Includes some photographs.

... Microteaching widely used in teacher education programs. Teaching, 1971, No. 2, 4-5. (Available from Stanford Centre for Research and Development in Teaching, School of Education).

Results of 1968-69 survey of the uses of microteaching in U.S. teacher education. Views microclasses of more than 8 pupils really as demonstration teaching. Includes references to use outside U.S.A. (In CLD library).

... Success with microteaching. School and Society, 1970, 98, 200.

April 1970 report of adoption of microteaching by more than half of teacher education programs in U.S.A.

... Teaching teachers; minicourses and microteaching. The National Elementary Principal, 1969, 48 (4), 30-31.

A brief survey of uses, including Peace Corps and Head Start. Claims good teachers are taught, not born.

D1: REPORTS OF APPLICATIONS ACCORDING TO SUBJECT MATTER

Applications to the teaching of science, second languages, business, industrial arts, music, reading, home economics, and social studies are included.

Ashlock, R.B. (U. Maryland, College Park) Micro-teaching in an elementary science mothods course. School Science and Mathematics, 1969, 68, 52-56.

Emphasizes versatility of the technique, evaluation in terms of specific criteria (or criterion), the relation between clearly stating objectives and being able to close a lesson. Reports noticeable change in teacher behavior from telling to asking.

Calabro, H. Micro-teaching and the foreign language teacher. Audiovisual Instruction, 1969, 14 (5), 62-63.

Emphasizes suitability to auditory discrimination drills in particular. Includes general descriptions of micro-teaching and outlines of sample lesson ideas for 4 specific fundamental language skills.

Clayton, D. (U. Arkansas, Fayetteville). Improve accounting instruction through micro-teaching. Business Education Forum, 1968, 23 (2), 18-19.

Microteaching is teacher oriented, unlike most other recent educational innovations (TV, programmed learning, multi-channel listening stations, etc.). Fully compatible with other teaching activities. Points out application in how to give out assignments.

Cook, F.S., & Brown, D.P. (Wayne State U., Detroit). Does microteaching have a place in business education? Business Education World, 1968 (April), 48, 7-9, 28-31, and (May) 14-16 and 21. In two parts.

Good section on disadvantages of microteaching. Rather complete descriptions of background and some case studies. (In CLD library).

Crews, J. W., Carr, G.D., & Hunter, E.F., (U. of Florida). Microteaching and other uses of videotape in teacher training. American Vocational Journal, 1969, 44, 58-59.

Specifically refers to business education teachers. Use of VTR stressed. (In CLD library).

Eggers, J.R. (East Tennessee State University) Videotape microteaching in I-A teacher education. School Shop, 1968, 27 (8), 96-97.

Describes application to industrial arts teacher training.

Gardner, M. (Science Teaching Centre, U. Maryland College Park), & Bartholomew, R. Microteaching: A medium for modifying teacher behavior. The Science Teacher, 1969, 36 (5), 45-47.

Points out difference from mini-labs or semi-microanalysis, and relevance to science education.

Kuhn, W. (Stanford U.), & McQuerrey, L.H. (U. of the Pacific, Stockton, California). Holding a monitor up to life: Microteaching, microrehearsal. Music Educators Journal, 1968, 55(4), 48-53

Includes a general summary plus applications to the teaching of conducting, especially for school music programs.

Olson, J.H. (U. of Minnesota, Minneapolis). Preservice reading instruction: A program of involvement. The Reading Teacher, 1969, 22, 691-695.

Added microteaching to lectures and seminars. Description of use at the University of Minnesota - Minneapolis.

Politzer, R. (Stanford U.) Microteaching: A new approach to teacher training and research. Hispania, 1969, 52, 244-248.

Review of microteaching directed to teachers of Spanish and Portuguese. Stresses importance of videotape recording; this is partly in conflict with other views, even those of the originators of microteaching who acknowledge its unique contribution, but deny its necessity.

Rienks, L. (Oshkosh High School, Wisconsin). Microteaching: A self-evaluation technique. Forecast for Home Economics, 1970, 16 (1), 110-111.

Perhaps places too much emphasis on videotaping. Includes a useful classroom illustration, reference to the "cosmetic" effect of the use of television and to minicourses (see references to Borg). (In CLD library).

Schomberg, C.E. (University of Houston, Texas). Models for social studies inservice programs. Social Education, 1968, 32, 704-706.

Mentions microteaching and other techniques in the context of providing direct teacher involvement.

Sedgewick, L.K., & Misfeldt, H.T. (both at American Industry Project, Stout State University, Menomonic, Wisconsin). Microteaching: New tool for a new program. Industrial Arts and Vocational Education/Technical Education, 1967, 56 (6), 34-35.

Contains a flow chart of a microteaching sequence and a short description of microteaching in text.

Shore (1972), Some Applications.... See Part C of this bibliography. This item includes a detailed description of microteaching in the training of second language teachers at McGill.

Smith, P.C., and Woolschlager, R.B. (Northern Illinois U., DeKalb). Prospective business teachers see themselves as others see them. The Balance Sheet, 1969, 50, 307-308 and 336.

A short review including five different patterns in which microteaching can be used. Useful even for this list alone. (In CLD library).

Woolschlager, R.B. (Northern Illinois U., De Kalb). Microteaching for Preservice and In-Service Teacher Preparation. National Business Education Quarterly, 1970, 38, 26-32.

A good review and working definition of microteaching. Applications to business education are stressed, but this should not deter other readers. (In CLD library).

D2: REPORTS OF APPLICATIONS ACCORDING TO SKILLS INVOLVED

Many selections in Parts A and B of this bibliography also refer to the choice and training of specific teaching skills with microteaching.

Borg, W.R., Langer, P., & Kelley, M.L. (all at Far West Lab. for Educational R. and D., Berkeley). The Minicourse: A new tool for the education of teachers. Education, 1970, 90, 232-238.

Review of main points of the Borg, et al.(1969) paper. Lists the 12 specific teaching skills covered in "Minicourse 1."

Eaton, J.H. (Mesabi state Junior College, Virginia, Minnesota) Videotape helps students learn to teach. Educational Leadership, 1968, 26, 299-301.

Includes a list of 17 single concepts taught in 12 minute microlessons and recommendations from participants. These included either providing more time or more limited concepts. Some of the 17 concepts are much larger than others, e.g., force and motion versus why wool is warmer than cotton. Possibly useful for a reader concerned with selecting topics for microlessons.

Koran, J.J., Jr. (U. of Texas at Austin). Supervision: An attempt to modify behavior. Educational Leadership, 1969, 26, 754-757.

Very concise summary of how microteaching is a suitable approach to training of supervisory behavior. Probably applicable beyond educational supervision.

McCollum, R., & LaDue, D. Microteaching in a teacher education program. Social Education, 1970, 34, 333-336.

Presents a list of classroom skills suitable for microteaching. Reports its use in Temple University's Elementary Program for Inner City Teachers (EPICT).

D3: REPORTS OF APPLICATIONS ACCORDING TO INSTITUTION

Aubertine, H.E. (Colorado St. U.) Use of microteaching in training supervisory teachers. The High School Journal, 1967, 51, 99-106.

Reports particular use at Walla Walla, Washington.

Dunn, M., Foote, M., & Garbel, M. Microteaching at Chicago State College. Illinois Schools Journal, 1968, 48, 161-165.

Authors express the opinion that microteaching helps students to differentiate good and bad lessons, to appraise instruction, to learn the value of self-appraisal in the presence of peers. No report of experimentally testing of these views is included.

Gregory, I.D. (Univ. College of Rhodesia). Microteaching in a pre-service educational course for graduates. British Journal of Educational Technology, 1971, 2 (1), 24-32.

Includes a survey of student attitude to microteaching as used at the University College of Rhodesia.

Hinmon, D.E. (U. of Minnesota, Morris). The Morris micro-teaching plan changes "broken-record" education lecture. Minnesota Journal of Education, 1968, 48 (6), 20-21.

Use begun in 3rd week of term. Emphasizes early contact with line studnets. Reports that the project is a full-time job to organize for 50 student teachers.

Johnson, J.A. What's new in teacher education. Illinois Education, 1968, 56, 328-330.

Use of microteaching and other techniques at the University of Illinois.

Kohn, D.A. (U. of Missouri). Videotaping large numbers of prospective teachers: Can it be effectively accomplished. Audiovisual Instruction, 1970, 15 (4), 105-107.

The adaptation of microteaching in teacher training at the University of Missouri. Students apparently wanted more and more varied microteaching experiences. Reasonably detailed account.

Sandrin, J.V., & Steere, B.F. Student involvement in teacher education programs. School and Community, 1971,57,16.

Very brief recapitulation of the use of microteaching at Missouri Southern College, Joplin.

Schaefer, M., & Stromquist, M.H. Microteaching at Eastern Illinois University. Audiovisual Instruction, 1967,12, 1064-1065.

Used for mathematics, physical education, and shorthand. Users felt handicapped by a shortage of VTR equipment. They suggest saving good model tapes, and retaining other "lab" experiences.

Young, D.B. (U. of Maryland) & Young, D.A. (John Hopkins U.) The model in use (microteaching). Theory into Practice, 1968, 7, 186-189.

Outline of implementation of microteaching at Maryland and John Hopkins, as well as in-service days, workshops, and the training of Leadership Teams.

E: OTHER ITEMS WITH REFERENCE TO MICROTEACHING

Altman, B.E. Micro team teaching with student teachers. The Instructor, 1969, 79, 88-89.

This is not really about microteaching, but about approach to teacher training using assisting teachers' own classrooms.

Bloom, J.M. (U. Wisc. Milwaukee) Videotape and the vitalization of teaching. The Journal of Teacher Education, 1969, 20, 311-315.

Just a brief mention of microteaching as a context in which VTR is often used.

Clark, E.C. (Sacred Heart U., Bridgeport, Conn.) Innovations in teaching the teacher. The Catholic School Journal, 1968, 68 (6), 28-31.

Mentions how schools can help in the development of innovations in teacher training, with brief but specific references to microteaching and Minicourse.

Cooper, J.M., & Allen, D.W. (U. Mass.) Microteaching: History and present status. ERIC No. ED-036-471, 1970. (Also mimeographed, dated July 3, 1969).

Includes an annotated bibliography. (Only bibliography in CLD library; complete article available at Educational Media Centre, McGill).

Cumming, J. (Wisc. St. U., Superior). New lab school role emerges. Wisconsin Journal of Education, 1968, 100 (10), 12-13.

Possibly confuses issue with new labels - Mini-Teaching and Mini-Lessons. Seems like microteaching. Concentrates on alternatives to exclusive student-teaching role of demonstration schools.

Dever, W.T., & Moore, N. (Prairie View A & M College, Texas). Video taping plus service training equals teacher education innovations. The Texas Outlook, 1968, 52, 14-15.

Incidental reference to microteaching in context of videotape recording. Interesting application, letting parents see their children in school using tapes of microteaching with the Teacher Corps (Future Teachers Club).

... And now it's "minicourses." Times Educational Supplement, April 5, 1968, No. 2759, p. 1173.

Short news release on the publication of the Minicourse (see Borg et al., 1969, and Borg, 1970).

F: FILMS, OTHER BIBLIOGRAPHIES

Allen, D.W., Bush, R.N., Ryan, K.A., & Cooper, J.M., (directors). Teaching skills for elementary and secondary school teachers. General Learning Corporation, 1971.

Series of 34 16mm films plus manuals and other items. Twenty minute preview film "An introduction to microteaching". (At McGill University, further information can be obtained from Prof. R. Jones, Educational Media Centre, Faculty of Education).

Canadian Teachers' Federation. Bibliography on Microteaching. December 1969. Available from CTF or ERIC.

Notes references available from ERIC and the CTF library (320 Queen St., Ottawa, Canada). (In CLD library).